

Notice of Allowability

Applicati n No.

10/090,305

Examiner

Sarah Song

Applicant(s)

BEOM ET AL.

Art Unit

2874

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 20 February 2004.
2. ☒ The allowed claim(s) is/are 1-55.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 1103.
- Id ntifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) f each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. Applicant's communication filed on February 20, 2004 has been carefully studied by the Examiner. The arguments advanced therein, considered together with the amendments made to the claims, are persuasive and the rejections based upon prior art made of record in the previous Office Action are withdrawn. Claims 2, 7 and 55 have been amended. Claims 1-55 are pending.

Drawings

2. Replacement sheets for Figures 1-3, 5A and 5B were received on February 20, 2004. These drawings are acceptable. However, it is noted that Figure 4 has not been corrected to include a -Prior Art- label as required in the previous Office action. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Allowable Subject Matter

3. Claims 1-55 are allowed.
4. The following is an examiner's statement of reasons for allowance: Salamon et al. discloses a CPWR device comprising a conductive thin film, a dielectric medium, a light source, a dielectric thin film and a photodetector as noted in the previous Office Action. The device of Salamon et al. detects an intensity of reflected incident light and does not detect an intensity of fluorescence.
5. Bendett discloses an optical sensor comprising a rare-earth doped waveguide. The device of Bendett detects a change in wavelength of emitted light, but does not detect an intensity of fluorescence, as noted by applicants on page 14 of the response.

6. Holland et al. (newly cited) discloses an optical sensor comprising a dielectric medium 10 and 22, conductive thin film 12, a dielectric thin film 14, a fluorescent material 16, and a photodetector for detecting an intensity of fluorescence from the material 16. However, the light source of Holland et al. is disposed on the side of the dielectric thin film and not on the side of the dielectric medium, therefore, it does not emit an incident light beam to the conductive thin film through the dielectric medium 10.

Additionally, the dielectric thin film is coated with active ions, and not doped with active ions.

7. Therefore, the prior art of record does not disclose or reasonably suggest, either alone or in combination, the claimed active ion-doped waveguide-plasmon resonance sensor comprising a conductive thin film, a dielectric medium, and a light source for emitting an incident light beam to the conductive thin film through the dielectric medium in combination with a dielectric thin film doped with active ions and with a photodetector for receiving and determining the intensity of fluorescence from the active ions as claimed in claims 1 and 29. Claims 2-28 and 30-55 are allowable as depending therefrom.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

8. Any inquiry concerning the merits of this communication should be directed to Examiner Sarah Song at telephone number 571-272-2359. Any inquiry of a general or

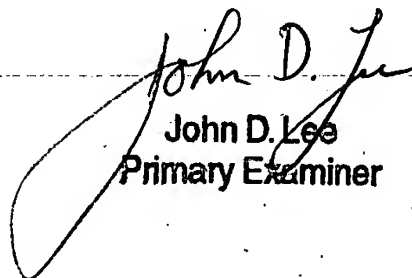
Application/Control Number: 10/090,305

Art Unit: 2874

Page 4

clerical nature, or relating to the status of this application or proceeding should be directed to the receptionist at telephone number 571-272-1562 or to the technical support staff supervisor at telephone number 571-272-1615.


sus


John D. Lee
Primary Examiner